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# UPLAND GAME BIRDS



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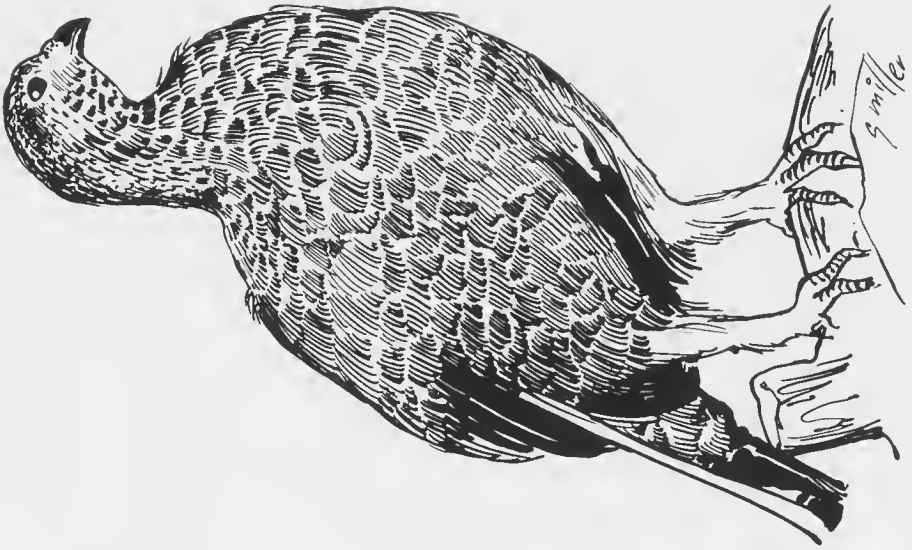
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## BLUE GROUSE

The second-largest of the native grouse, adult males weigh about 43 ounces and hen 33 ounces.

As the name implies they are slaty-blue in color. Hens are quite dark-grey on the upper surface with a slaty-blue belly.

In Alberta, blue grouse range extends southward from the Smoky river to the United States border. Its preferred habitat exists in coniferous high-altitude regions along the slopes of the Rocky mountains. The birds frequent a mixture of conifer stands and alpine meadows in the winter and lower, deciduous-coniferous regions during the summer.

Hens begin nesting in late May and lay about 7 eggs; incubation takes 23 days. Chicks remain close to the hen and keep to open grassy slopes. As they grow bigger they move into more wooded areas.

Legumes and insects make up most of the summer diet; conifer needles support the winter diet. Quantities of grit are consumed.



## SPRUCE GROUSE

A native grouse, found in the solid coniferous forests of northern and western Alberta, the spruce grouse is slate-colored and weighs between 17 - 20 ounces at maturity. It is not found in the park-land region owing to the lack of conifers. It normally inhabits regions with large stands of spruce and pine and seems to require undisturbed wilderness areas to survive. In Alberta they inhabit southern regions of the Rocky mountains and foothills.

The male is splotched with black and white beneath and dark on the back with a conspicuous red comb over each eye. The female is irregularly barred all around the body with the same colors, but with a large admixture of rusty-brown. The spruce grouse has an ochre-brown band on the tip of the tail, while the ruffed grouse is distinguished by a black tail band.

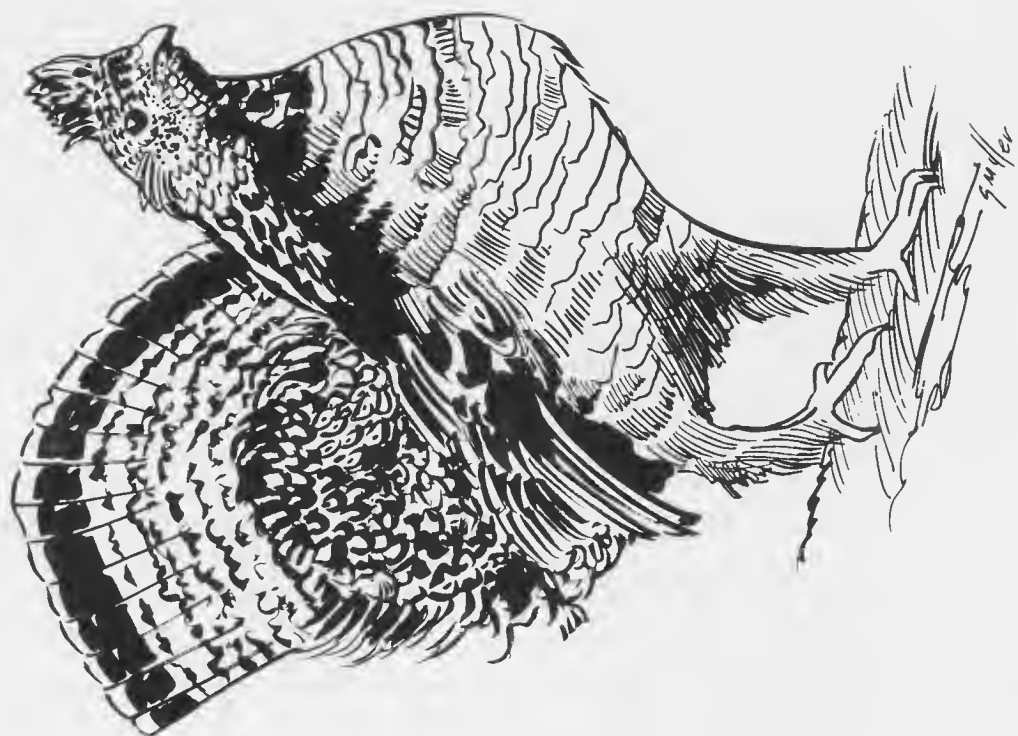
Spruce grouse construct their nests on the ground under bushes or beneath low overhanging branches of spruce or pine. The number of eggs varies from 10 to 16 and are buff or cinnamon in color, boldly marked with varying shades of rich brown.

A wide variety of food is taken throughout the year with the main winter food consisting of spruce and pine needles. In the spring and summer, insects, green vegetation, and buds are principle food items while in the fall, fleshy fruits, seeds, tree and shrub buds and coniferous needles are favoured.

This common native grouse has been named "Fool Hen" because of its tame nature. Indians once captured them by standing under a tree in which grouse were perched and snaring them with a loop of horsehair on the end of a pole.

A subspecies of the Spruce grouse is called Franklin's grouse. Identifying features are as follows:

The tail of the male Franklin's is longer and has broader feathers than that of the male Spruce Grouse. Furthermore the tail lacks the terminal orange-rust bar found on the male Spruce Grouse. The male Franklin's has more noticeable black-and-white banding on the sides of the rump. Adult females differ from the female Spruce Grouse; the tail-coverts are white-tipped and the tail also tipped with white instead of orange-brown.





## RUFFED GROUSE

The ruffed grouse is native to Alberta and has a broad range. It may be found in wooded areas in southwestern, central and northern Alberta. It is the large, chicken-like bird with the red-brown or gray-brown color tones of the brushy woodlands. The female is occasionally mistaken for a hen pheasant. It is perhaps our most widespread native game bird. The tail is fan shaped with a broad black band near the tip. In the spring and early summer the male bird can be heard drumming on a log or mound. The nest is a mere shallow excavation made in the ground usually near the foot of a tree, and lined with dried leaves. Nests contain from 7 to 16 buff-brown eggs with an average of 10 to 12 (rarely more).

The diet is varied but consists mainly of seeds, fruits and buds. Large numbers of insects and much green vegetation are consumed in the spring and summer. In late fall grain and weed seeds are more important food items. The winter food in the farming areas is primarily weed seeds, grain and poplar and willow buds. In wilderness areas, seeds, poplar and willow buds, and spruce and pine needles make up the bulk of the winter diet. Bits of green clover and grass are consumed in the winter when available. Ant eggs are a favorite food for the young chicks as well as grasshoppers, flies and mosquitoes.

Ruffed grouse populations vary considerably and large fluctuations in numbers are readily apparent. At one period the birds may be very scarce and a few years later their favored habitat is densely populated. The meat is white and delicate in flavour. A large adult will weigh 1 1/2 pounds (20 to 24 ounces).



## PTARMIGAN

Two kinds of ptarmigan occur in Alberta; they are the willow ptarmigan of northern Alberta and the white tailed ptarmigan of the western mountains.

Ptarmigan differ from other game birds in coloration; a marked seasonal change occurs in their plumage. Each winter they replace dark plumage with white, in a manner similar to the varying hare.

Individual characteristic differences between the two kinds are:

### Willow Ptarmigan

- a. In winter, pure white with black bill and black tail that only shows in flight. Dark eyes.
- b. In summer, wings white and rest of body brownish.

### White-tailed Ptarmigan

- c. In winter pure white including tail, black bill and eyes.
- d. In summer, lower breast, abdomen, tail and most of wings are white, remainder greyish brown.

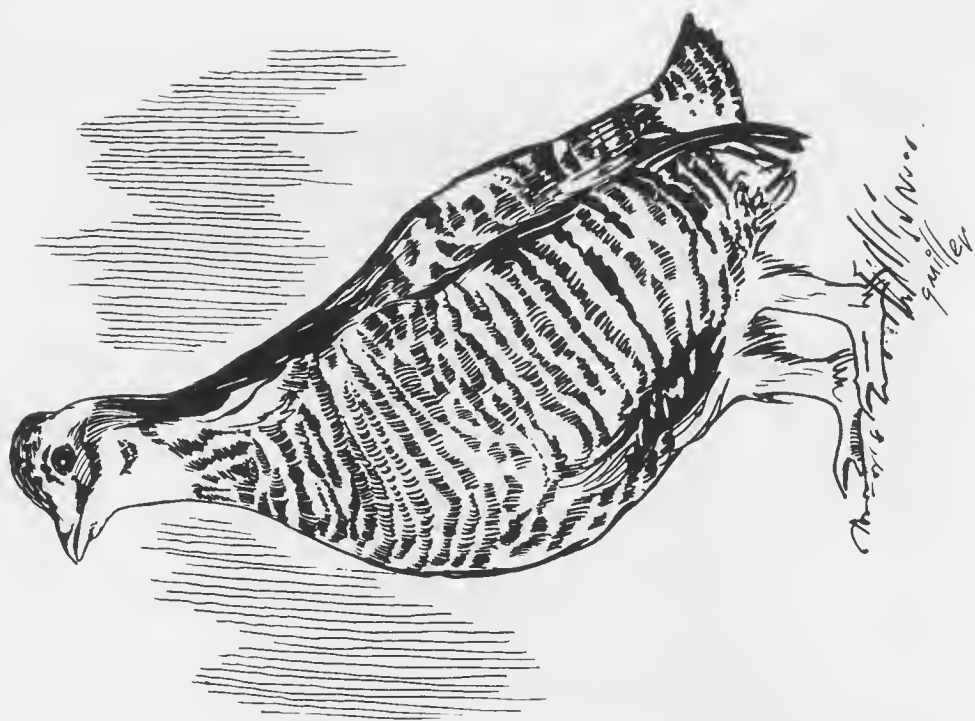
The willow ptarmigan is found in Alberta only during the fall and winter months. After a summer in the north it may migrate as far south as Edmonton during the winter months and is a regular winter visitor in the area north of Lesser Slave Lake. In the McMurray and Lake Athabasca regions it is more numerous in the winter months than the resident native grouse species. It is believed that in spring, willow ptarmigan move north to the areas of the Northwest Territories to raise their young; only a few remain to nest in Alberta.

The white-tailed ptarmigan migrates into the high mountain regions in the summer to raise its young and then down into the lower valleys for the winter months.

The female ptarmigan lays an average of 7 to 10 eggs that are marked with brown. Several ptarmigan families will bunch together in the alpine meadows when the chicks are young and it is at this time that they can be easily captured. The chicks "freeze" in the grass and the hens scurry around close to the intruder, uttering loud clucking sounds.

During the fall and winter months when willow ptarmigan are migrating, they may bunch up in large numbers and fly southward for considerable distances. However, most of the migrating is done on foot.

In winter when the ptarmigan are in the lowlands they can be detected flying very swiftly among willow clumps along creek beds where they feed on willow buds. They also eat seed and frozen berries during the winter. In the summer they consume insects and other animal matter as well as green alpine vegetation.



## PINNATED GROUSE

This rare "prairie chicken" is slightly larger than its neighbor the sharptail, brownish in color, strongly barred below, with a short, square-tipped tail. The long feathers (pinnae) on either side of the neck are positive identification. These stiff feathers are erected over the head during the courtship dance. The back and wing coverts have variegated markings with irregular blackish bars. The female is similar to the male, but somewhat smaller and with shorter pinnae.

The average weight of the males is slightly more than two pounds; females weigh about one and one-half lbs.

The nest, containing eleven or twelve olive or tan colored eggs, is located in a dense clump of grass, briars or other plants on a well-drained spot on the open prairie. The nest is hollowed out from the vegetation and is usually within one-quarter mile of the "dancing" ground. The eggs hatch after 23 or 24 days of incubation and the chicks are soon scurrying about in search of insects and bits of green vegetation.

Much of the summer food consists of insects, especially grasshoppers. Grain is very important in the fall and winter.

This native prairie grouse thrived during early settlement days when there were large tracts of grassed prairie land with some grain farming to provide a good source of winter food. As the amount of grassland converted to grain-land increased and essential nesting areas were thereby lost, numbers of pinnated grouse declined rapidly. At the present time only the occasional sighting is reported in Alberta. It has been many years since one has been positively identified and it may be extinct in this Province.



## SHARP-TAILED GROUSE

This native grouse has a very extensive range. It can be found in the tamarack muskegs and the sandhills of the north; grassy mountain slopes of the west; rolling poplar hills of the parklands, and the open prairie of the south. The "prairie chicken" as it is often called, is a most adaptable bird, both from the standpoint of vegetation and topography. No matter what the environment, the sharp-tail prefers open country and is not found in dense spruce and pine growth. It differs from the true prairie chicken (pinnated grouse), in having a pointed tail and no breast bars.

In spring "sharptails" gather on dancing grounds where their characteristic mating behavior takes place. The courtship procedure is easily observed and the performance is guaranteed entertainment for anyone fortunate enough to be on hand. The same location is used for dancing year after year; a high knoll is usually preferred.

In the prairie regions the "sharptail" lives on weed seeds, grain and green-plant vegetation. In treed areas, it subsists largely on wild fruits, especially blueberries and cranberries in the summer and buds and leaves in winter.

Eggs are laid during April and May and number from 7 to 17 with an average of about 12. They are olive buff in color, spotted with brown in varying degrees and laid in a nest placed on the ground amongst dense vegetation. The incubation period varies from 21 to 24 days.

In contrast to ruffed and spruce grouse, sharptails may migrate long distances. In the mountains they move from high country in the summer to the lowlands in the winter. In northern Alberta they reach peak populations about once every ten years. After the area north of Edmonton becomes heavily populated for 2 or 3 years, the birds suddenly die off and within one or two years, few can be seen. Then after two or three years they once more become plentiful.

Sharptails are dark fleshed and heavier than ruffed grouse and spruce grouse. A large adult may weigh 3 pounds but they average 28 to 30 ounces.

This bird characteristically perches on branches of trees on cold mornings in the fall and winter.





## SAGE GROUSE

The sage grouse, or sagehen, is typically an inhabitant of the sagebrush plains and foothills of the upper region of the Great Basin and the northern Rocky Mountains of the United States. Only where sagebrush is abundant do these birds thrive.

They are found in the extreme southeast corner of Alberta occurring sporadically as far west as Range 20, and north to Twp. 7 at least in the east. These birds are not plentiful and are protected by law.

The sage grouse is the largest of the native grouse species, ranging in weight from 4 1/2 to 7 pounds. They are not migratory in habit like the sharp-tailed grouse and prairie chicken.

Nesting takes place during April and May, with the number of eggs ranging from 5 to 12 and averaging 7 to 8. The eggs are olive buff, spotted with brown and the incubation period is 20 to 22 days. The sage grouse makes its nest in a scantily lined hollow on the ground, usually at the base of a sagebrush plant.

In general, favored cover is characterized by herbaceous or low woody vegetation, chiefly sagebrush. Sagebrush also comprises 70 to 80 percent of the food supply. It is eaten at all seasons and virtually all parts are edible: small stems, twigs, leaves, flowers, and fruiting heads. Of the other plants used for food, the most important are clover, dandelion, grasses and species of the buttercup family. Ants, cricket eggs, live, aphids, scale insects, and beetles are the principal sources of foods of animal origin.



## RING-NECKED PHEASANT

Pheasants are not native to Alberta and were first released in 1908 in the vicinity of Calgary.

Pheasants are found in greatest numbers in the irrigation districts of southern Alberta. They are well distributed throughout the prairie and parkland regions south of the North Saskatchewan river. North of the river, the land supports a forest vegetation generally unsuitable for pheasant food and cover. Only scattered flocks are found in a few localities north of Edmonton. Prolonged periods of deep snow and severe winter weather discourage pheasant populations from reaching high densities. Also, since these birds depend upon farm crops for much of their food supply they may not thrive in unrelieved wooded areas.

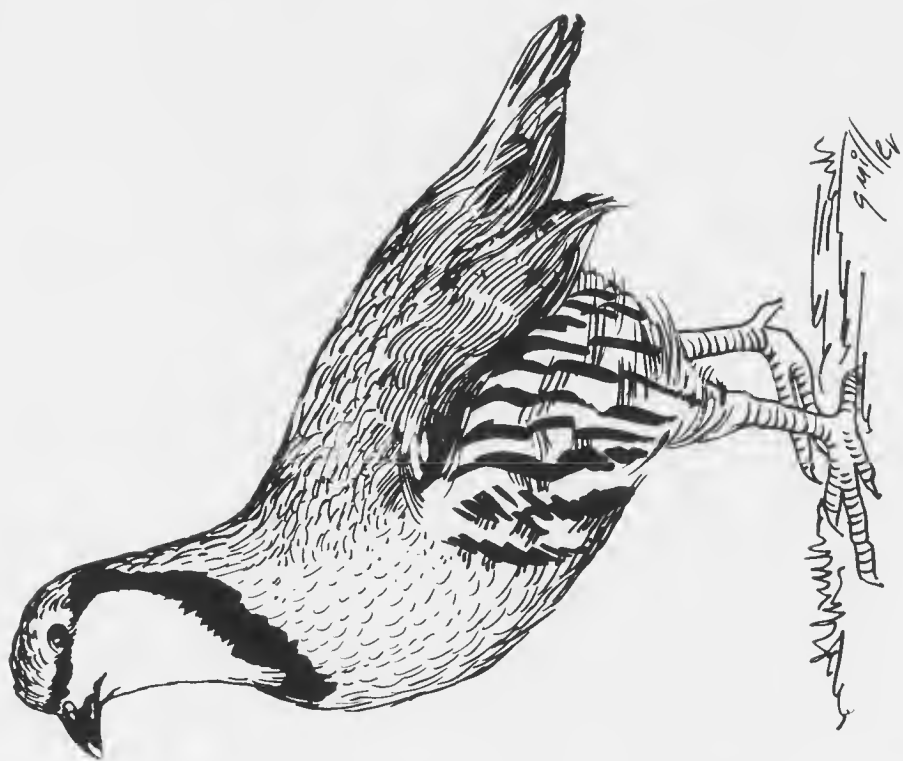
The main characteristics of good pheasant habitat are:

1. 50 - 75% of the land under cultivation.
2. Rich soil, high in calcium.
3. Level or gently rolling country.
4. Cover and nesting habitat in the form of shrubs, hay and marshy swales. Hay meadows should be left relatively undisturbed until nesting is completed.

The ring-necked pheasant is a large bird with a long, sweeping pointed tail. The male is highly colored with a white neck ring. The female is mottled brown with a moderately long pointed tail. Cocks weigh 2.5 - 3.5 lbs. and hens about 2.0 lbs.

Nesting begins in April and early May and incubation takes 23 to 25 days. The hen lays an average of 10 to 12 eggs which vary in color from olive green to dull tan.

Pheasant chicks feed chiefly on insects for the first three weeks, graduating to grains and weed seeds as winter approaches. Domestic cereal grains make up about 75 percent of an adult pheasant diet, wild seeds 10 percent, wild fruit 5 percent, while insects, animals, grass and leaves make up the remaining 10 percent. Dense cover is favored after feeding time, but during the early morning pheasants may be seen on and near roads obtaining grit or in the open fields obtaining green vegetation or grain.



## CHUKAR PARTRIDGE

Native to Mongolia, Tibet, India, Arabia and Egypt.

Hen partridge were first introduced into Alberta in 1937 when 25 pairs were released near Midnapore. A total of over 2,500 were released in Alberta in 1954 and 55.

Both sexes are similar. Upper plumage is light brownish grey. A prominent wide black line extends from the forehead through the eyes, down the sides of the neck, and across the upper breast like a bib. Throat is white, belly and flank, grey. Sides are crossed with a series of vertical black and brown bars. Beak, feet and legs are red.

In winter chukars group together at lower elevations of their range, roosting in heavier vegetation cover. They move to slopes during the day to feed. In Alberta, birds seem dependent upon cattle winter feed lots and granaries.

In spring birds begin pairing and move out of heavier cover onto the higher more rugged aspect of their range. Nests are constructed on these slopes, usually under light sagebrush cover.

In most of their dry habitat they make regular visits to permanent streams or waterholes.

Average clutch size is 14 to 16 yellowish white eggs with brown speckles. Males may assist for a while in rearing the chicks.

Certain kinds of arid range land and desert seem best. They seek steep, rocky, rugged slopes for roosting and escape and have done well in rough, arid country unsuited for agriculture.

Bunchgrass, cheat grass, and sagebrush are the prevalent plants in most of the chukars' habitat; willows, poplar, shrubs and weeds are common cover plants.



## HUNGARIAN PARTRIDGE

This game bird was first introduced to southern Alberta in 1908 from Hungary. They multiplied so rapidly that an open season was declared on them five years after their introduction. Hungarian partridge are now found from the Peace river block to the United States border. They are common throughout the prairie and parkland regions and have moved into farmlands in the forested area north of the North Saskatchewan river as far as Lesser Slave Lake. They appear to be hardier than pheasants and suffer less from the Alberta climate. In some years, they are very numerous throughout the central and southern part of the province. In other years they appear quite scarce. Severe winters and poor nesting weather greatly hamper survival and reproduction.

The average weight of an adult Hungarian partridge is about 15 ounces. These birds "pair off" in late winter and begin nesting in April or early May. There are usually from 16 to 18 eggs in a nest but there may be as many as 25 or as few as 10 eggs per clutch. It takes 21 to 24 days for the female to hatch her eggs. The young are full grown at about 110 days.

Except among juvenile birds, less than one month old, the diet of the Hungarian partridge contains very little food of animal origin. Fundamentally, it is vegetarian; animal matter, mostly insects, makes up perhaps one twentieth of the year's food supply. In summer, animal food may form 10 to 15 percent of the diet. The food of adult birds is confined mainly to agricultural products: waste grain, weed seeds, leaves of grasses and grain plants. Grain, weed seeds and green leaves make up 80 to 90 percent of the diet.





## MERRIAM'S TURKEY

This large game-bird was introduced to the Cypress Hills of Alberta from South Dakota in 1962. The fifteen birds released increased during the summer of 1962 to about 50 birds.

This large ground bird is native to the Central United States. The original range of the wild turkey (of which the Merriam's is one of six subspecies) was from southern Mexico through New England to eastern Canada and west to include 39 of the United States. Primarily a bird of open forests, it was unable to withstand deforestation and other advances of civilization. It has now vanished from 18 of the 39 States.

The general appearance of the turkey is very similar to the domestic bronze turkey. The Merriam's has not much cinnamon-brown on the top of the tail, and the tips of the tail and tail coverts are whitish or buff instead of brown. The rump is velvety black.

Merriam's weigh from 5 to 25 pounds. Hens average 8 to 10 pounds and gobblers 13 to 15 lbs. It is a bird of the coniferous forest and forest openings. The food consists of an omnivorous diet of mast, fruits, grain, green vegetation and insects. During fall and winter months in southern Alberta the birds must rely on dried berries, weed seeds, and waste grain from the occasional adjacent grain field. Because this bird is a ground feeder it cannot cope with continued deep snow conditions. Water should be available throughout the year.

Ten or eleven eggs are laid during a two week period in early spring. The eggs are incubated for 28 days and the new poults soon learn to forage for themselves.

Portions of southern Alberta including the Cypress Hills and the Porcupine Hills appear to form a favorable habitat.

## TREES, SHRUBS, AND VINES ATTRACTIVE TO BIRDS

Most birds, including both upland game and song birds, thrive if food and cover are provided in unit form. Certain shrubs, trees and vines native to Alberta and successfully introduced can be used to help sustain birds. Some of these are listed below.

## NATIVE TREES

CHOKE CHERRY. Prunus virginiana

Birds Attracted: The wild cherries, Prunus spp., are known to attract more than 80 species of birds. The choke cherry is a favourite of many, including cedar waxwings, robins, catbirds, mockingbirds, and thrushes.

PIN CHERRY. Prunus pennsylvanica

Birds Attracted: Approximately 80 species of song and game birds, including white-throated sparrows; white-crowned sparrows, towhees, goldfinches, gray-cheeked thrushes, song sparrows, ruffed grouse, and pheasants.

HAWTHORNS. Crataegus chrysocarpa; Crataegus douglasii

Birds Attracted: 39 species including robins, purple finches, bobwhites, hermit thrushes, pine grosbeaks, and ruffed grouse.

MOUNTAIN ASH. Sorbus scopulina, native; S. aucuparia, exotic.

Birds Attracted: A favourite of robins and Bohemian and cedar waxwings. Also eaten by redheaded woodpeckers, brown thrashers, evening and pine grosbeaks, Baltimore orioles, and others.

SHADBUSH. Amelanchier alnifolia

Birds Attracted: Over 40 species, including thrushes, orioles, cedar waxwings, woodpeckers, cardinals, robins, red-eyed vireos, mourning doves, scarlet tanagers, brown thrashers, and others.

WHITE SPRUCE. Picea glauca

Birds Attracted: More than 24 species, including purple finches, crossbills, woodpeckers, chickadees, and wood thrushes.

NATIVE SHRUBS

LOWBUSH CRANBERRY. Viburnum edule

Birds Attracted: Fruit known to be eaten by 35 kinds, including thrushes, bluebirds, flickers, catbirds, phoebes, brown thrashers, and ruffed grouse.

HIGHBUSH CRANBERRY. Viburnum trilobum

Birds Attracted: Avidly eaten by ruffed grouse and pheasants. Eaten sparingly by some song birds.

BUCKTHORN. Rhamnus cathartica, exotic; Rhamnus alnifolia, native

Birds Attracted: Ruffed grouse, purple finches, waxwings, brown thrashers, and others.

SNOWBERRY. Symphoricarpos occidentalis

Birds Attracted: Both song and game birds, including pine and evening grosbeaks, robins, towhees, brown thrashers, pheasants, and ruffed grouse.

ELDERBERRY. Sambucus melanocarpa

Birds Attracted: 118 species are known to eat the fruits, including woodpeckers, kingbirds, grosbeaks, bluebirds, thrushes, towhees, mockingbirds, and white-crowned sparrows.

RED-OSIER DOGWOOD. Cornus stolonifera  
(Kinnikinnick)

Birds Attracted: Nearly 100 species of song and game birds are attracted to the various dogwoods, this being one of the favourites.

SNOWBERRY. Symphoricarpos albus

Birds Attracted: 33 species including towhees, robins, pine and evening grosbeaks, cardinals, cedar waxwings, and thrushes.

INTRODUCED TREES

AMERICAN ELM. Ulmus americana

Birds Attracted: The nutlets attract purple finches, goldfinches, and pine siskins. The insects attract vireos, warblers, and others.

FLOWERING CRAB. Malus sylvestris; Malus baccata (Siberian Crab).

Birds Attracted: The fruit is a winter favourite of mockingbirds and is eaten readily by wintering finches, crossbills, and grosbeaks. The fallen fruits are eaten by ruffed grouse and other game birds.

NORWAY SPRUCE. Picea excelsa, (Rare)

Birds Attracted: Purple finches, crossbills, grosbeaks, ruffed grouse, and others.

RED CEDAR. Juniperus virginiana, (not hardy)

Birds Attracted: Over 50 species, including myrtle warblers, robins, flickers, cardinals, phoebes, kingbirds, blue-jays, chickadees, cedar waxwings, and thrushes.

WHITE PINE. Pinus strobus, (not common).

Birds Attracted: A large variety including woodpeckers, waxwings, pine siskins, red-breasted nuthatches, ruffed grouse, wood ducks, horned grebes, warblers, and owls.

INTRODUCED SHRUBS

JAPANESE BARBERRY. Berberis thunbergi

Birds Attracted: Catbirds, chipping sparrows, hermit thrushes, juncos, song sparrows, and others.

MULTIFLORA ROSE. Rosa multiflora

Birds Attracted: Bluebirds, robins, cedar waxwings, white-throated sparrows, juncos, tree sparrows, catbirds, bob-whites, pheasants, and many others.

TARTARIAN HONEYSUCKLE. Lonicera tatarica

Birds Attracted: Brown thrashers, catbirds, robins, cedar waxwings, purple finches, and white-throated sparrows.

INTRODUCED VINES

BITTERSWEET. Celastrus scandens

Birds Attracted: Ruffed grouse, pheasants, bob-whites, bluebirds, robins, hermit thrushes, and red-eyed vireos.

COMMON MATRIMONY VINE. Lycium halimifolium (not common)

Birds Attracted: Song birds, fall migrants, and early winter arrivals.

VIRGINIA CREEPER. Ampelopsis quinquefolia

Birds Attracted: 38 species, including flickers, red-headed woodpeckers, yellow-bellied sapsuckers, olive-backed and gray-cheeked thrushes, red-eyed vireos, and scarlet tanagers.

# DATE DUE SLIP

OCT 14 RETURN	
RETURN MAR 12 '82	
RETURN NOV 1 '82	
DUE EDUC NOV 20 '84	
NOV 21 RETURN	
MAR 17 '87	
MAR 17 RETURN	
DUE EDUC NOV 22 '84	
RETURN NOV 23 '94	

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